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FILE 'USPAT' ENTERED AT 15:16:33 ON 02 AUG 1999

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 *    U.S. PATENT TEXT FILE     *
 *                              *
 * THE WEEKLY PATENT TEXT AND IMAGE DATA IS CURRENT
 *
 * THROUGH July 27,1999         *
 *                              *
 *                              *
 ********************************

=>s sv40 or sv(w)40

      4874 SV40
      6915 SV
   1369668 40
       846 SV(W)40
L1     5288 SV40 OR SV(W)40

=> s pseudovirus or pseudotyp?

        16 PSEUDOVIRUS
        92 PSEUDOTYP?
L2     107 PSEUDOVIRUS OR PSEUDOTYP?

=> s l1 and l2

L3      60 L1 AND L2

=> d l3,cit,rel,ab,1-60
```

1. 5,929,222, Jul. 27, 1999, Expression of a foamy virus envelope protein; Dirk Lindemann, et al., 536/23.4; 435/69.7 [IMAGE AVAILABLE]

US PAT NO: 5,929,222 [IMAGE AVAILABLE] L3: 1 of 60

ABSTRACT:
The invention concerns constructs for the expression of a protein comprising at least a modified FV envelope protein, the protein so obtained as well as the complementation cell line permitting the production of **pseudotyped** viral particle. It also concerns pharmaceutical composition comprising said particles and a method for treating a disease.

2. 5,910,434, Jun. 8, 1999, Method for obtaining retroviral packaging cell lines producing high transducing efficiency retroviral supernatant; Richard J. Rigg, et al., 435/7.1, 7.72, 325, 350, 357, 363, 366 [IMAGE AVAILABLE]

US PAT NO: 5,910,434 [IMAGE AVAILABLE] L3: 2 of 60

ABSTRACT:
This invention provides a method for obtaining a recombinant retroviral packaging cell capable of producing retroviral vectors and the recombinant packaging cell obtained by the method. Also provided is a method of producing recombinant retroviral particles obtained by introducing into the packaging cells obtained according to the methods disclosed herein, a recombinant retroviral vector and propagating the resulting producer cells under conditions favorable for the production and secretion of retroviral vector supernatant. The retroviral supernatants produced by these methods also is claimed herein. This invention further provides a method for screening retroviral vector supernatant for high transduction efficiency and methods for producing retroviral vector supernatant for transducing cells with high efficiency in gene therapy applications.

3. 5,888,502, Mar. 30, 1999, Recombinant retroviruses; Harry E. Guber, et al., 424/93.21, 93.2; 435/320.1, 372.3 [IMAGE AVAILABLE]

US PAT NO: 5,888,502 [IMAGE AVAILABLE] L3: 3 of 60
REL-US-DATA: Division of Ser. No. 136,739, Oct. 12, 1993, Pat. No. 5,716,826, which is a continuation of Ser. No. 395,932, Aug. 18, 1989, abandoned, which is a continuation-in-part of Ser. No. 170,515, Mar. 21, 1988, abandoned.

ABSTRACT:
Recombinant retroviruses carrying a vector construct capable of preventing, inhibiting, stabilizing or reversing infectious, cancerous or auto-immune diseases are disclosed. More specifically, the recombinant retroviruses of the present invention are useful for (a) stimulating a specific immune response to an antigen or a pathogenic antigen; (b) inhibiting a function of a pathogenic agent, such as a virus; and (c) inhibiting the interaction of an agent with a host cell receptor. In addition, eucaryotic cells infected with, and pharmaceutical compositions containing such a recombinant retrovirus are disclosed. Various methods for producing recombinant retroviruses having unique characteristics, and methods for producing transgenic packaging animals or insects are also disclosed.

4. 5,883,081, Mar. 16, 1999, Isolation of novel HIV-2 proviruses; Gunter Kraus, et al., 514/44; 424/160.1; 435/69.1, 320.1; 530/388.35; 536/23.1 [IMAGE AVAILABLE]

US PAT NO: 5,883,081 [IMAGE AVAILABLE] L3: 4 of 60

ABSTRACT:
Novel HIV-2 proviruses, molecular clones, nucleic acids, polypeptides, viruses and viral components are described. The use of these compositions as components of diagnostic assays, as immunological reagents, as vaccines, as components of packaging cells, cell transduction vectors, and as gene therapy vectors is also described.

5. 5,877,010, Mar. 2, 1999, Thymidine kinase mutants; Lawrence A. Loeb, et al., 435/320.1, 243, 325; 536/23.2, 23.5, 23.72, 24.1 [IMAGE AVAILABLE]

US PAT NO: 5,877,010 [IMAGE AVAILABLE] L3: 5 of 60
REL-US-DATA: Continuation-in-part of Ser. No. 237,592, May 2, 1994, abandoned.

ABSTRACT:
The present invention provides isolated nucleic acid molecules encoding a Herpesviridae thymidine kinase enzyme comprising one or more mutations, at least one of the mutations encoding an amino acid substitution upstream from a DRH nucleoside binding site which increases a biological activity of the thymidine kinase, as compared to unmutated thymidine kinase. Within another aspect, one of the mutations is an amino acid substitution within a DRH nucleoside binding site which increases a biological activity of the thymidine kinase, as compared to unmutated thymidine kinase. Also provided are vectors suitable for expressing such DNA molecules, as well as methods for utilizing such vectors.

6. 5,874,264, Feb. 23, 1999, Gibbon ape leukemia virus receptor; Bryan Mark O'Hara, 435/6, 69.1, 320.1; 530/350; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,874,264 [IMAGE AVAILABLE] L3: 6 of 60
REL-US-DATA: Division of Ser. No. 674,287, Mar. 25, 1991, Pat. No. 5,414,076, which is a continuation-in-part of Ser. No. 398,351, Aug. 24, 1989, abandoned.

ABSTRACT:
The present invention relates to novel purified gibbon ape leukemia receptor proteins and purified DNA sequences encoding these receptor proteins.

7. 5,874,089, Feb. 23, 1999, Protecting against canine oral papillomavirus (copy); C. Richard Schlegel, et al., 424/204.1, 184.1, 186.1, 192.1, 199.1; 435/5, 69.1, 69.3, 235.1, 320.1; 536/23.72 [IMAGE AVAILABLE]

US PAT NO: 5,874,089 [IMAGE AVAILABLE] L3: 7 of 60

ABSTRACT:
Recombinantly produced L1 major capsid proteins which mimic conformational naturalizing epitopes on human and animal papilloma virions including canine and equine papilloma virions are provided. These recombinant proteins are useful as vaccines for conferring protection against papillomavirus infection. Antibodies to the recombinant protein are also provided. Such antibodies are useful in the diagnosis and treatment of viral infection.

8. 5,871,986, Feb. 16, 1999, Use of a baculovirus to express and exogenous gene in a mammalian cell; Frederick M. Boyce, 435/183, 320.1, 325; 536/23.2 [IMAGE AVAILABLE]

09/068293

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    Set  Items  Description
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? s sv40 or sv(w)40

       23781  SV40
       19256  SV
      748405  40
       11150  SV(W)40
    S1  31256  SV40 OR SV(W)40
? s pseudotyp? or pseudovirus

        1480  PSEUDOTYP?
          78  PSEUDOVIRUS
    S2  1553  PSEUDOTYP? OR PSEUDOVIRUS
? s s1 and s2

       31256  S1
        1553  S2
    S3    29  S1 AND S2
? rd

...completed examining records
    S4    23  RD (unique items)
? s s3 and py<=1995

Processing
Processing
          29  S3
    30609307  PY<=1995
    S5    19  S3 AND PY<=1995
? t s5/3,ab/1-19


 5/3,AB/1    (Item 1 from file: 5)
DIALOG(R)File  5:Biosis Previews(R)
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07996729  BIOSIS NO.: 000093052402
ESTABLISHMENT OF PORCINE CELL LINES PRODUCING A MURINE
RECOMBINANT
 RETROVIRUS IN ORDER TO TRANSFER THE NLSLACZ GENE INTO
PORCINE CELLS

AUTHOR: CHARREAU B; GREPINET O; DELOUIS C; NANDI P K
AUTHOR ADDRESS: INST. NATIONAL DE LA RECHERCHE
AGRONOMIQUE, UNITE DE
 PATHOL. INFECTIEUSE IMMUNOL., 37380 NOUZILLY, FR.

JOURNAL: RES VIROL 142 (5). 1991. 343-352.
FULL JOURNAL NAME: Research in Virology
CODEN: RESVE
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Swine testis (ST) cell lines producing a murine recombinant
 retrovirus (RRV) were established in order to transfer the bacterial lacZ
 gene fused to a nuclear location signal (nlslacZ) into animal cells. ST
 cells were infected with the supernatant of the cat G355.5LacZ2 cell line
 which produces amphotropic and xenotropic MMuLVSVnlslacZ-defective
RRV
 and wild amphotropic and xenotropic MMuLV. Expression of the nlslacZ
 reporter gene was under the transcriptional control of both the
 %%%SV40%%% early promoter and the retroviral LTR. ST cells expressing
the
 reporter gene were sorted and cloned by limiting dilutions. Fourteen
 STLacZ-cell lines were isolated and subsequently tested for virus
 production. Depending on the host range of the retroviruses, two cell
 lines (STBF11 and STAA3) produced both a xenotropic recombinant
 %%%pseudotype%%% and wild retroviruses; another (STAB10) produced
both an
 amphotropic recombinant %%%pseudotype%%% and wild retroviruses.
Southern
 blot analysis of the producer cell lines was carried out to verify
 proviral integration. The efficiency of the different %%%pseudotypes%%%
 RRV produced by cat cell lines. Our results showed that the xenotropic
 RRV produced by the porcine STBF11 cell line has a high titre for cells
 from different species and led to a higher number of porcine endothelial
 and lymphoblastoid cells expressing the reporter gene than did RRV
 produced by the cat packaging cell lines.


 5/3,AB/2    (Item 2 from file: 5)
DIALOG(R)File  5:Biosis Previews(R)
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05678368  BIOSIS NO.: 000084026773
BIOLOGICAL EFFECTS OF A MURINE RETROVIRUS CARRYING AN
ACTIVATED N-RAS GENE
 OF HUMAN ORIGIN

AUTHOR: SOUYRI M; KOEHNE C F; O'DONNELL P V; ALDRICH T H;
FURTH M E;
 FLEISSNER E
AUTHOR ADDRESS: MOLECULAR BIOL. PROGRAM, MEMORIAL
SLOAN-KETTERING CANCER
 CENT., 1275 YORK AVENUE, NEW YORK, N.Y. 10021.

JOURNAL: VIROLOGY 158 (1). 1987. 69-78.
FULL JOURNAL NAME: Virology
CODEN: VIRLA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: We have introduced a genomic DNA clone of a mutated human
N-ras
 gene from a T-cell leukemia cell line into a retroviral vector equipped
 with a neo resistance gene and with %%%SV40%%% and pBR322 origins of
 replication. The helper free N-ras virus, which was recovered after
 transfection of the construction in the .psi.2 packaging cell line,
 contained a correctly spliced N-ras gene. Proviral DNA was amplified in
 cos cells and subsequently cloned in bacteria. Nucleic acid sequence
 analysis of the activated N-ras gene revealed a point mutation at codon
 12 resulting in a glycine to aspartic acid substitution. The N-ras virus
 was able to transform mouse fibroblastic cell lines, but failed to fully
 transform mouse primary embryo fibroblasts. MoMuLV or amphotropic
4070A
 %%%pseudotypes%%% of the virus were injected intraperitoneally into
 newborn mice. The MoMuLV %%%pseudotype%%% produced only
 helper-virus-induced leukemias. The amphotropic %%%pseudotype%%%
caused
 fibrosarcomas after a long latent period. The results of these and other
 in vivo experiments are discussed in relation to known pathogenic effects
 of other retroviruses carrying H-ras or K-ras genes.


 5/3,AB/3    (Item 3 from file: 5)
DIALOG(R)File  5:Biosis Previews(R)
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05582857  BIOSIS NO.: 000083055997
SUPPRESSION OF TUMOR GROWTH BY SENESCENCE IN VIRALLY
TRANSFORMED HUMAN
 FIBROBLASTS

AUTHOR: O'BRIEN W; STENMAN G; SAGER R
AUTHOR ADDRESS: DIV. OF CANCER GENETICS, DANA-FARBER
CANCER INST., 44
 BINNEY ST., BOSTON, MASS. 02115.

JOURNAL: PROC NATL ACAD SCI U S A 83 (22). 1986. 8659-8663.
FULL JOURNAL NAME: Proceedings of the National Academy of Sciences
of the
United States of America
CODEN: PNASA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Normal human cells whether embryonic, neonatal, or adult are
 resistant to experimentally induced tumorigenesis in contrast to rodent
 or chicken cells. We showed previously that neither transformation with
 simian virus 40 DNA or transfection with human mutant HRAS DNA
 immortalized FS-2 cells (diploid, neonatal human fibroblasts). Further,
 tumorigenicity was not induced, despite expression of the respective
 transforming gene products tumor (T) antigen or p21. Here we describe
 treatment of FS-2 and FSSV cells with baboon endogenous virus
 %%%pseudotyped%%% Kirsten murine sarcoma virus. FSSV cells were
derived
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culture as %%%SV40%%% pseudovirions, and transmitted into the target cells by infection. The first group of vectors carried sequences for bacterial replication, and functioned as shuttle vectors, or for screening promoters and enhancers in conjunction with a reporter gene, e.g. the cat (chloramphenicol-acetyltransferase, EC-2.3.1.28) gene. The second group of vectors, designed for gene therapy, carried restriction sites for removal of prokaryotic sequences after growth in bacteria. These constructs included as little as 200 bp %%%SV40%%% virus DNA, and
their cloning capacity for human DNA, such as the beta-globin gene and flanking sequences, was over 5 kb. Plasmids with over 95% human DNA were introduced efficiently into human hemopoietic cells. A helper-free packaging cell culture was constructed, and the efficiency of the vector in gene targeting was assessed. The vector should be useful in gene therapy. (0 ref)

5/3,AB/17 (Item 2 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0082089 DBA Accession No.: 89-00080
Development of an %%%SV40%%%-pseudo viral vector for somatic gene therapy
- %%%SV40%%% virus vector construction; cloning and expression in human bone marrow cell culture (conference abstract)
AUTHOR: Oppenheim A; Dalyot N; Peleg A; Rachmilewitz E A
CORPORATE SOURCE: Department of Hematology, Hadassah University Hospital,
Jerusalem, 91120, Israel.
JOURNAL: J.Cell.Biochem. (Suppl.12B, 182) %%%1988%%%
CODEN: 5210J
LANGUAGE: English
ABSTRACT: As the first step in development of a gene therapy procedure, a vector was developed for efficient introduction of foreign DNA into human hemopoietic cells. The vector carried the %%%SV40%%% virus replication origin and prokaryotic sequences for growth in bacteria. The plasmid was packaged in a COS cell culture as an %%%SV40%%%
%%%pseudovirus%%% with a helper virus providing %%%SV40%%% virus late
proteins. High titer stocks could be prepared. The plasmid was transmitted by viral infection into human bone marrow cells, including erythroid cells, at high efficiency. Minimal vector sequences were required for preparation of pseudovirions (200 bp), so regulatory signals that might interfere in studies on control of gene expression could be excluded. Due to its high efficiency, the vector could be used for transient expression experiments in human hemopoietic cells. A gene construct could be investigated with and without gene amplification, depending whether it was packaged with wild-type %%%SV40%%% virus as
helper or a T-antigen negative helper. The vector is being used for studies on expression of cloned human globin genes and in gene targeting experiments. (0 ref)

5/3,AB/18 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
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74061883 CA: 74(13)61883q JOURNAL
SV40 pseudovirus: its potential for general transduction in animal cells
AUTHOR(S): Grady, Leo J.; Axelrod, David; Trilling, David
LOCATION: Div. Lab. Res., New York State Dep. Health, Albany, N. Y.
JOURNAL: Proc. Nat. Acad. Sci. U. S. DATE: 1970 VOLUME: 67 NUMBER: 4
PAGES: 1886-93 CODEN: PNASA6 LANGUAGE: English

5/3,AB/19 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 1999 American Chemical Society. All rts. reserv.

73022451 CA: 73(5)22451g JOURNAL
Encapsidation of free host DNA by simian virus 40: a simian virus 40 pseudovirus
AUTHOR(S): Trilling, David M.; Axelrod, David
LOCATION: Div. of Lab. and Res., New York State Dep. of Health, Albany, N. Y.
JOURNAL: Science DATE: 1970 VOLUME: 168 NUMBER: 3928
PAGES: 268-71
CODEN: SCIEAS LANGUAGE: English

```
? s capsid(3n)assembl?

      17870  CAPSID
     182899  ASSEMBL?
   S6   1093  CAPSID(3N)ASSEMBL?
? s s1 and s6

      31256  S1
       1093  S6
   S7     23  S1 AND S6
? s s7 not s5

         23  S7
         19  S5
   S8     23  S7 NOT S5
? rd

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? s s9 and py<=1995

Processing
         21  S9
   30609307  PY<=1995
  S10     16  S9 AND PY<=1995
? t s10/3,ab/1-16
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10/3,AB/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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10239953 BIOSIS NO.: 199698694871
Role of mouse polyomavirus late region in the control of viral DNA replication: A review.

AUTHOR: Iacoangeli A; Melucci-Vigo G; Risuleo G(a); Santi E
AUTHOR ADDRESS: (a)Dip. Genetica Biologia Molecolare, Univ. Roma 'La Sapienza', Pl Aldo Moro 5, 00185 Rome, Italy

JOURNAL: Biochimie (Paris) 77 (10):p780-786 1995
ISSN: 0300-9084
DOCUMENT TYPE: Literature Review
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The genome of polyomaviruses is divided into two coding regions:
the early and the late region. A relatively short regulatory sequence, encompassing the origin of viral DNA replication (ori), separates the two regions encoding the structural genes. In mouse polyomavirus (Py) in particular, the early DNA codes for three antigens: large, middle and small T-antigen (L-T, M-T and S-T, respectively). Large T antigen binds ori and thus regulates both viral DNA transcription and replication. Middle T antigen has been shown to mediate malignant transformation in non-permissive cells in vitro. No defined function has been assigned to the small T antigen although this gene product is thought to act synergistically both with L- and M-T antigens. The viral late region of Py encodes also three different genes whose products form the viral capsid during the productive infection cycle in permissive cells. Py early region was thought to be the only part of the genome necessary to code for proteins of functional and regulatory significance. The viral late region, on the other hand, was for a long time considered a simple reservoir of structural information, since it codes for capsid proteins and was supposedly devoid of functional control properties. This short review is focused on recent works from our and other laboratories, reporting evidence that in Py also the late region has a functional role since late sequences are involved in the control of viral DNA replication and in %%%capsid%%% %%%assembly%%%. Results indicating that this might be
true for the cognate simian virus %%%SV40%%% will be also reviewed.

10/3,AB/2 (Item 2 from file: 5)
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